# Lepidoptera - Rhopalocera

obtained by Mme J. Visser—Hooft of the Hague (Holland) during an exploration of previously unknown country in the Western Karakorum, N.W. India,

by

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The collection consisted of 410 specimens belonging to 27 species. In addition there were 27 moths, which have been sent to Mr. TAMS of the British Museum to work out. There are several interesting features regarding the collection and attention may be drawn to the paucity of species in the area. Since Mme VISSER was catching at elevations from 3.000 to 4.500 metres this might not perhaps be a matter for surprise, but in parts of Chitral and Central Asia many more species occur at similar elevations.

Papilio machaon is ubiquitous in Palaearctic territory and calls for no remark. Of Parnassius more species should occur, viz simo and acco as well as an actius form; of the three species encountered there seem to have been very few individuals. The Pieridae call for no remark except that deota appears to have replaced brassicae; I am not sure whether these two species occur together anywhere and if not, as I rather suspect, then deota is to be considered as a local race of brassicae. In the Satyridae one would have expected to find a Karanasa species; Maniola pulchella has probably reached its limit as it does not occur in C. Asia. In the Nymphalidae, Argynnis hegemone is an interesting capture and so also is Melitaea saxatilis, which has not previously been recorded from India, but has I understand

been obtained by General TYTLER from the Gilgit area. It is remarkable that no specimens of Melitaea trivia or didyma were obtained and it would seem that saxatilis has replaced and very likely is conspecific with one of them. Nymotypical saxatilis is Persian and it is not altogether certain whether the C. Asian forms usually regarded as saxatilis really belong to that species. The Lycaenidae were all rather rubbed specimens, but the two forms of *Polyommatus* are of especial interest. The Hesperiidae are represented by a single species; one would have expected to find Hesperia sao and Pamphila comma.

The nomenclature followed in the ensuing list is that used in my recent papers in the Journal of the Bombay Natural History Society on the "Identification of Indian Butterflies".

# PAPILIONIDAE.

1. Papilio machaon L. 17 examples. All darker and rather more heavily marked than the Indian race asiatica MEN.

Localities; Khunjerah, 3700 M, 20-24th June; Ghujerab, 4000-4600 M, 28th June-3rd July; Shimshal, 4000 M, 18-20th July; Khurdapin, 3800 M, 22nd July.

2. Parnassius epaphus OB, 14 examples; typical.

Localities; Ghujerab, 4500 M, 4-6th June; Khunjerah, 4000 M, 25-26th June: Ghujerab, 4000-4500 M, 28th June-4th July; Mandi Kushlag, 4200 M, 6th July; Shimshal, 3500 -3600 M, 20-25th July.

3. Parnassius delphius EVERS. 2 examples referable to the small pale race hunza GG.

Locality; Mandi Kushlag, 4200 M, 6th July.

4. Parnassius charltonius GRAY. 3 examples; typical, Locality; Shimshal, 3000-3500 M, 12-20th July.

# PIERIDAE.

5. Pieris chloridice HUB. 3 examples; typical.

Localities; Pasu, 2400 M, 5th June and 22nd Aug.; Shimshal, 3000 M, June.

6. Pieris callidice ESP. 11 examples; typical of race kalora M.

Localities; Khunjerah, 3150-4000 M, 12-26th June;

Ghujerab, 4000 M, 2<sup>nd</sup> July; Batura, 3000—3200 M, 29—31<sup>st</sup> Aug.

7. Pieris daplidice L. 1 example; typical of race moorei ROB. Locality; Batura, 3250 M, 2<sup>nd</sup> Sept.

8. Pieris deota DE N. 5 examples.

Localities; Khunjerah, 3950 M, 25<sup>th</sup> June; Shimshal, 3350—3600 M. 19–20<sup>th</sup> July.

- 9. Pieris rapae I.. 71 examples. Very variable as usual. Localities; Baltit, May; Gircha, June; Shimshal, 3000 M, June and 8th July; Pasu, 2400 M, 22nd Aug.
  - 10. Colias hyale L. 16 examples

Localities; Shimshal, 3000 M, June; Pasu, 2400 M, 22nd Aug.

11. Colias eogene FD. 6 examples; typical.

Localities; Ghujerab, 4500 M, 4<sup>th</sup> July; Simshal, 3300—3600 M, 19—22<sup>nd</sup> July; Batura, 3100 M, 12<sup>th</sup> Sept.

12. Colias croceus FOUR. I example; referable to race edusina BUT.

Locality; Peshwari, 2700 M, 29th Oct.

# SATYRIDAE.

13. Maniola pulchella FD. 25 examples; more or less typical. Localities; Batura, 3000—3250 M, 30th Aug.—30th Sept.

14. Eumenis mniszechii HS. 1 very worn specimen referable to the race lehana M.

Locality; Khaibar, 21st Aug.

15. Aulocera swaha KOLL. 1 very worn specimen.

Locality; Batura, 3000 M, 29th Aug.

16. Erebia mani DE N. 4 examples; more or less typical. Locality; Shimshal, 3350—4000 M, 19—20<sup>th</sup> July.

# NYMPHALIDAE.

17. Vanessa cardui L. 10 examples.

Localities; Baltit, May; Tragbal, April; Pasu, 5<sup>th</sup> June; Gircha, 8<sup>th</sup> June; Khunjerah, 3150 M, 12<sup>th</sup> June; Shimshal, 3300 M, 19<sup>th</sup> July.

18. Vanessa egea CR. 2 examples; belonging to race undina GG.

Localities; Khunjerah, 3150 M, 12th June; Batura, 3000 M, 29th Aug.

19. Argynnis aglaia L. 80 examples, belonging to the race vithata MOORE.

Localities; Batura, 3000—3600 M, 29<sup>th</sup> Aug.—30<sup>th</sup> Sept. 20. *Argynnis pales* SCHIFF. 1 example belonging to the race *sipora* M.

Locality; Khunjerah, 3800 M, 21st June.

21. Argynnis hegemone STG. 4 examples; typical.

Localities; Ghujerab, 3800 M, 3<sup>rd</sup> July; Mandi Kushlag, 4000 M, 6<sup>th</sup> July.

22. Melitaea saxatilis CHRIST. 10 examples; a rather pale form of the race fergana STG.

Localities; Khunjerah, 3900 M, 9th June; Chapdangal, 4100 M, 29th June; Ghujerab, 4300—4600 M, 3—5th July; Mandi Kushlag, 4000 M, 6th July.

#### LYCAENIDAE.

23. Lycaena metallica Hub. 28 examples, rather smaller and paler than the typical form, but the specimens are all very worn.

Localities; Shimshal, 3300—3600 M, 18—22nd July.

- 24. Polyommatus eros OCHS., race hunza GG. 21 examples. Localities; Shimshal, 3300—3600 M, 18—22<sup>nd</sup> July.
- 25. Polyommatus eros OCHS., race janetae nov. 57 examples. Localities; Khunjerah, 3700 M, 21st June; Ghujerab, 4000—4500 M, 2-6th July; Batura, 3000—3600 M, 29th Aug.—30th Sept.

The males of both these forms of *eros* are dark shining blue above with a thread-like black border. The females are dark brown with shining dark blue bases with traces of orange marginal spots near the tornal area on the hindwing and some times visible on the forewing. Below *hunza* is greyish white with rather more extensive green basal scaling on the hindwing; the discal dark spots on the hindwing are faintly white ringed and very small, the central spots vestigial; on the forewing the discal spots are small or absent and there is no spot in the cell; the marginal orange lunules are more or less wellformed but faint on the hindwing and just traceable on the forewing. Below *janetae* is rather dark leaden grey with prominently white ringed well

developed dark spots on both wings; on the hindwing the white rings swamp the spots and there is a more or less well developed broad white streak from the centre of the cell to the middle of the termen; the marginal orange lunules are completely replaced by large sub-triangular white spots between the veins on both wings. The race hunza averages 36mm in expanse and janetae 33mm. hunza was only found in the Simshal valley; it corresponds with Groum Groumshaillio's description. janetae was found in the Khunjerah, Ghujerab and Batura valleys; it lies between the Chitral droshana and Himalayan ariana and is a perfectly good race of eros. hunza is a good deal different to any form of eros and may turn out to be a distinct species. janetae is named after Mme JANET VISSER—HOOFT, the discoverer.

26. Heodes phlaeas L. I example referable to the race stygianus But.

Locality; Khunjerah, 3950 M, 25th June.

### HESPERIDAE.

27. Hesperia alpina ERSCH. 8 examples. Typical. Localities; Batura, 3100—3600 M, 31st Aug. — 6th Sept.